

What is claimed is:

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5 1. A system cooperable with a data engine which is responsive to a query, comprising at least one conditional attribute and at least one attribute to be displayed, to produce an associated report comprising one or more objects, each object comprising said at least one displayed attributes, said system comprising:

10 first means for rendering at least one object from a report;

first means, responsive to user interaction with said rendered report, for selecting one or more displayed attributes and causing said one or more displayed attributes to change to respective one or more conditional attributes;

second means for rendering at least one conditional attribute for a query;

second means, responsive to user interaction with said one or more rendered conditional attributes, for selecting one or more conditional attributes and causing said one or more conditional attributes to change to respective one or more displayed attributes;

means, responsive to said conditional and displayed attributes, for generating a subsequent query.

25 2. A system as claimed in claim 1 wherein said data engine is a database and said query is an SQL query.

3. A system as claimed in claim 1 wherein said data engine is a simulation tool.

5 ^{5/27} 4. A system as claimed in claim 1 wherein said first and second selecting means comprise respective means for navigating through said one or more attributes to select a single conditional or displayed attribute to be changed.

10 5. A system as claimed in claim 4 comprising:
means, responsive to user interaction with a selected conditional attribute, for determining a value of said selected conditional attribute to be used as a condition in said subsequent query.

6. A system as claimed in claim 5 wherein said value comprises a complex expression.

7. A system as claimed in claim 5 wherein said determining means is responsive to user interaction to determine an adjusted value of said selected attribute's value as said condition.

25 8. A system as claimed in claim 4 wherein said first navigation means is responsive to user interaction to cause said selected displayed attribute to change to a conditional attribute and said second navigation means is

responsive to user interaction to cause said selected conditional attribute to change to a displayed attribute.

5 ^{SUB} 13 9. A system as claimed in claim 1 wherein said first and second selecting means are responsive to user interaction to cause all conditional attributes to change to displayed attributes and to cause all displayed attributes to changed to conditional attributes.

10 10. A system as claimed in claim 1 wherein said first rendering means is adapted to initially display all objects from a report associated with a query.

11. A system as claimed in claim 1 wherein said first rendering means is adapted to display said objects in a table.

12. A system as claimed in claim 1 wherein said first rendering means is adapted to display said objects isometrically.

13. A system as claimed in claim 1 wherein said second rendering means is adapted to display said attributes isometrically.

25 14. A system as claimed in claim 1 comprising means for receiving user input corresponding to at least a portion of a first query.

15. A system as claimed in claim 14 wherein said receiving means comprises one of a natural language interface, a text entry field or a query-by-example analyzer.

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P417 16. A method operable with a data engine which is responsive to a query, comprising at least one conditional attribute and at least one attribute to be displayed, to produce an associated report comprising one or more objects, each object comprising said at least one displayed attributes; said method comprising the steps of:

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rendering at least one object from a report;

responsive to user interaction with said rendered report, selecting one or more displayed attributes and causing said one or more displayed attributes to change to respective one or more conditional attributes;

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rendering at least one conditional attribute for a query;

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responsive to user interaction with said one or more rendered conditional attributes, selecting one or more conditional attributes and causing said one or more conditional attributes to change to respective one or more displayed attributes;

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responsive to said conditional and displayed attributes, generating a subsequent query.

17. A computer program product comprising computer program code stored on a computer readable storage medium for, when executed on a computing device, allowing a user to refine a query, the program code comprising the system of claim 1.

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